



Steve Bellone

SUFFOLK COUNTY EXECUTIVE

Natalie Wright
CommissionerDepartment of Economic Development and Planning
Division of Planning and Environment**STAFF REPORT****SECTIONS A14-14 THRU A14-24 OF THE SUFFOLK COUNTY ADMINISTRATIVE CODE**

Applicant: Holbrook Energy Storage
Municipality: Town of Islip
Location: north side of Furrows Rd. (Town Road) approx. 300 feet east of Trail Blazer Court

Received: 1/14/2021
File Number: IS-21-01
T.P.I.N.: 0500 06800 0100 008000
Jurisdiction: within 500 feet of adjacent municipality (Brookhaven)

ZOING DATA

- Zoning Classification: Industrial 1 District
- Minimum Lot Area (Sq Ft): 20,000 sf
- Section 278: NA
- Obtained Variance: NA

SUPPLEMENTARY INFORMATION

- Within Agricultural District: No
- Shoreline Resource/Hazard Consideration: No
- Received Health Services Approval: No
- Property Considered for Affordable Housing Criteria: No
- Property has Historical/Archaeological Significance: No
- Property Previously Subdivided: Yes
- Property Previously Reviewed by Planning Commission: No
 - Map Yield: NA
- SEQRA Information: Yes
- SEQRA Type: Unlisted
- Minority or Economic Distressed: No

SITE DESCRIPTION

- Present Land Use: vacant
- Existing Structures: none
- General Character of Site: rolling
- Range of Elevation within Site: 75' - 110' amsl
- Cover: woods along the south, barren soil & weedy growth
- Soil Types: carver and Plymouth associations
- Range of Slopes (Soils Map): 0 - 15 %
- Waterbodies of Wetlands: none regulated

NATURE OF SUBDIVISION/ NATURE OF MUNICIPAL ZONING REQUEST

- Type: special exception
- Layout: grid
- Area of Tract (Acres): 14.5
- Yield Map: NA
 - No. of Lots: 1
 - Lot Area Range (Sq. Ft.): N/A
- Open Space (Acres): 0

ACCESS

- Roads: public
- Driveways: private

ENVIRONMENTAL INFORMATION

- Stormwater Drainage
 - Design System: cb & Lp
 - Recharge Basins: none
- Groundwater Management Zone: I
- Water Supply: public
- Sanitary Sewers: none

PROPOSAL DETAILS

OVERVIEW

Application is made to the Islip Town Zoning Board of Appeals for Special Exception authorization to allow the construction of a privately owned and operated, lithium ion Battery Energy Storage System (BESS) with a capacity of up to 525 MW. The proposed energy storage system is intended to be grid-connected to LIPA's existing West Bus Electric Substation or nearby LIPA transmission lines adjacent to the site. In addition, simultaneous appeals are made for an authorization to construct accessory buildings on site without a principle structure, and an interpretation request as to whether privately owned utility-scale battery storage constitutes a public utility.

The subject property is situated on the north side of Furrows Road in the hamlet of Holbrook, Town of Islip. The existing LIPA West Bus Electric Substation, that is a proposed point of interconnection, is located north of the BESS and also in the hamlet of Holbrook but in the Town of Brookhaven. An alternate point of interconnection is at the Holtsville Substation east of the subject site (in the Town of Islip). All total the proposed development sites are 18.74 acres (14.5 acres for the BESS site and 4.24 acres for the two alternate interconnection locations).

Quoting from the referral materials from the Islip Town Zoning Board of Appeals to the Suffolk County Planning Commission, the proposed "BESS consists of battery containers (which contain racks of lithium-ion batteries similar to what are in our portable phones and electronics) inverters (which convert electricity from AC-to-DC, and DC-to-AC), transformers (which "step up" and "step down" the system voltage), HVAC cooling systems (Batteries generate heat when charging and discharging) control instrumentation and electric grid interconnection switchgear for the 69kv/138kv interconnection, which provides switching and protection to the BESS's electrical systems, and point of interconnection."

The conceptual layout of the Holbrook Energy Storage, LLC BESS is configured in a grid pattern with the interior project roadways constructed of recycled concrete aggregate-based materials approximately 20' wide, arranged to "provide for facility construction, operation and maintenance and security; as well as First Responders travel across the entire site, and meeting applicable Town, County, State, Federal and industry standards, accommodating the Town Fire Marshall's requirements for First Responder emergency fire and rescue vehicles." It is noted in referral materials that the nearest SCWA fire hydrant to the proposed project site is situated roughly halfway along the project frontage at Furrows Road.

The subject development site is zoned Industrial 1 District and, according to the Town of Islip Zoning Law, is "designed for a wide range of industrial and related activities which can meet a reasonable level of performance standards as set forth in the Subdivision and Land Development Regulations..." Lands to the east and immediate north of the property are also zoned Industrial 1 and appears to be in use as such. The subject property is bordered to the south by Furrows Road (Town road) and high density residentially zoned and developed lands adjacent and beyond. To the west the site is adjacent to open space as part of a residentially zoned high density development. Also to the west, the site is adjacent to commercial land. To the north the Holbrook Energy Storage, LLC BESS is adjacent to lands as contributing to a Long Island Power Authority (LIPA) Right Of Way (R.O.W) that abuts the Long Island Rail Road Right Of Way. Less than 500 feet to the north across the two R.O.W's is land and facilities associated with Northville Industries and Market Span Gas Corp.

The Northville Industries property is a clean product fossil fuel tank farm facility and has 12 floating roof tanks and 3 cone roof tanks. The storage capacity totals 380,000 barrels (15,960,000 Gallons). Distillates are loaded from the 8 positions at the East Rack, which has both top and bottom loading facilities for #2 fuel oil, diesel, and kerosene. Gasoline (with additive capability) and #2 fuel oil are loaded from the 7 positions on the West Rack, which has bottom loading facilities only. The Market Span/Keyspan Gas Corp property contains natural gas storage and distribution.

The stated purpose of the proposed Holtsville Energy Storage, LLC project is to have the BESS's primary function to be to charge "at night or times of excess offshore wind production and be available to discharge during peak electric demand times, provide frequency regulation and voltage control, as well as emergency backup power."

According to the referral materials to the Suffolk County Planning Commission from the Islip Town Zoning Board of Appeals, it is anticipated that the BESS project "will have no air emissions or wastewater discharges and will not require any water use during site operation; will comply with the Towns Noise Code; will generate minimal traffic during operation as the BESS will be remotely controlled and monitored, requiring only periodic on-site maintenance; is completely compatible with industrial-zoned land use, less impactful than alternative Industrial uses and less impactful on community resources than other industrial and residential land uses; and generate valuable property tax revenue."

Storm Water runoff generated within the project's developed area will be recharged onsite to groundwater via engineered and constructed swales collecting and directing on-site generated storm water runoff to on-site subsurface diffusion wells.

Access to the proposed Holbrook Energy Storage, LLC BESS development is to be from a single point of gated, but otherwise uncontrolled, access at the south west corner of the subject site to Furrows Road (Town road).

The subject property is situated in Hydro-geologic Ground Water Management Zone I pursuant to Article 6 of the Suffolk County Sanitary Code. The site is not located in a NYS Special Groundwater Protection Area (SGPA). No fresh or tidal wetlands occur on site or in the immediate vicinity. The subject property is not in a Suffolk County Pine Barrens zone.

According to referral information provided to the Suffolk County Planning Commission by the Islip Town Zoning Board of appeals, the site is currently undergoing physical and environmental remediation under NYSDEC Consent Order No. R1-20150923-175, which is expected to be completed sometime in late 2020. Full Environmental Assessment Form (FEAF) information (pg. 10, section E.1g. [undated]) indicates that “in 1993 the site and adjoining property was listed as a Large Quantity Generator for hazardous waste, with no violations reported. The facility no longer generated hazardous waste as of 1999.” Item E.1.h. of the FEAF indicates that there has been a reported spill at the proposed project site and that the site is listed on the NYSDEC Spill Incidents database or Environmental Site Remediation database (DEC ID numbers 9711355). The FEAF text further indicates that “Spill # 9711355 has been closed with NYSDEC as of 1/30/98.” The EAF also indicates that the “Site is currently undergoing remediation per the NYS DEC consent order noted above. All work will be closed out with DEC prior to work commencing on site for the BESS.”

STAFF ANALYSIS

GENERAL MUNICIPAL LAW CONSIDERATIONS: New York State General Municipal Law, Section 239-I provides for the Suffolk County Planning Commission to consider inter-community issues. Included in such issues are compatibility of land uses, community character, public convenience and maintaining of a satisfactory community environment.

Generally accepted land use practice defines a Special Exception as a permission or approval granted an applicant to use land in a district for a purpose other than that generally permitted outright in that district. Special exception uses are intended to be very carefully controlled to avoid adverse effects of the use. The special exception petition must show that the proposed use meets the categorical definition as a use type and then that the specific requirements contained in the ordinance will be met. The Board grants the special exception if the proposal meets the special permit standards and specific requirements found in the zoning regulations.

The Town of Islip Zoning Law section 68-341. I (Uses permitted as special exception by Board of Appeals after public hearing) lists a “public utility, when no repair or storage facilities are maintained.” Notwithstanding that the proposed Holbrook Energy Storage, LLC, privately sponsored and operated BESS proposal needs an interpretation from the Town Zoning Board of Appeals as to its use classification, the proposed use must meet the specific requirements contained in the ordinance. However, no specific “public utility” requirements are provided by the Islip Town Zoning Law that would aid the ZBA in its evaluation with the exception of the requirement of a ZBA held public hearing prior to its determination.

Best practice would be for the Town Zoning Board of Appeals to consider if the Special Exception request is detrimental to the character of the area or neighborhood or inconsistent with trends of development in the area. The special exception development should account for adjacent land uses and the physical features of the project site and the development of the special exception use should protect those uses. The special exception use should not adversely affect the use and enjoyment of neighboring property, or to the health, safety and welfare of the County.

Standards that are typically considered when granting the a special exception are whether the proposed special exception will create congestion on roads or streets, create fire hazards, tend to overcrowd land or unduly concentrate population, interfere with adequate provision for school, parks, water, sewerage, transportation or other public service, or adversely interfere with the surrounding environment.

It is the belief of the Suffolk County Planning Commission staff that with state-of-the-art safety mitigations and adequate buffering of adjacent properties the proposed special exception use (Holbrook Energy Storage LLC BESS) can be compatible with adjacent land uses, maintain the immediate existing community character, and is not expected to adversely affect public convenience and the maintaining of a satisfactory community environment.

LOCAL COMPREHENSIVE PLAN RECOMMENDATIONS: The Town of Islip Community Identity Plan for Holbrook/Bohemia designates this area for industrial development but makes no specific recommendations for the subject property.

The Plan does indicate that “Wherever industrial development will be adjacent to or across from residentially zoned land, this development site should be well-buffered from the residential use.” The Plan intent is to separate industrial operations and residential dwellings. “Wherever industrial development adjoins residential properties, building setbacks should be increased to the extent possible in order to keep the building mass farthest away from the residential use.” Furthermore, the Plan reads, “if the industrial site is wooded, a wooded buffer strip should be left in its natural state wherever the adjacent property is in a residential zone ... in no case should the Town’s existing 25 foot buffer [now 50’] requirement be relaxed.”

It is the belief of the Suffolk County Planning Commission staff that from a review of the submitted Project Overview plan (C-001, dated September 11, 2020 by Savion) referred to the Suffolk County Planning Commission by the Islip Town Zoning Board of Appeals that the proposed Holbrook Energy Storage, LLC BESS can be constructed and operated in conformance with the Islip Town comprehensive planning initiatives provided that adequate buffering to adjacent properties is included.

SUFFOLK COUNTY PLANNING COMMISSION GUIDELINE CONSIDERATIONS:

The Suffolk County Planning Commissions has identified six general Critical County Wide Priorities and include:

1. Environmental Protection
2. Energy efficiency
3. Economic Development, Equity and Sustainability
4. Housing Diversity
5. Transportation and
6. Public Safety

These policies are reflected in the Suffolk County Planning Commission Guidebook (unanimously adopted July 11, 2012). Below are items for consideration regarding the Commission policies:

The Holbrook Energy Storage, LLC project is considered “Regionally Significant” by Suffolk County Planning Commission guidelines in that the proposed facility is “a new electric...storage facility greater than 6 MW of power” and within 500 feet of an adjacent municipality (Brookhaven). **

Of the above policies, it is worth mentioning that housing diversity is not really relevant to the Planning Commissions review for this action except to the extent that according to referral materials the proposed BESS is designed to be capable of powering over 106,000 homes for up to 8 hours; the diversity of the homes notwithstanding. With respect to Energy Efficiency, the project is necessary in order to make alternative energy sources (i.e. solar and wind) practical and uninterrupted. Regarding transportation, there is not expected to be high generation of motor vehicle trips after construction and construction impacts to transportation are likely to be temporary.

Issues that remain to be discussed are related to the environment and public safety. Past practices at the site have left contamination that is in the process of, or near closure, with respect to a New York State Department of Environmental Conservation Consent Order noted above. It has been indicated by the project sponsors that all activities with regard to remediation of the past use and practices on site will be closed out with the NYS DEC prior to work commencing on site for the BESS. Suffolk County Planning Commission staff has been unable at this time to confirm the status of the remediation.

There is some concern upon review of the referral that noise emanating from the operation of the Holbrook Energy Storage, LLC BESS will bleed off-site and effect adjacent residential properties to the west and south. The project sponsors have indicated that construction noise will be temporary, localized and limited to the hours of construction. Predicted noise levels from project operation (transformers/HVAC systems) are not expected to exceed the Town's Noise Code (section 35-4 of Islip Town Code) and the project will provide predicted sound modeling analysis once completed. The existing natural mature deciduous wood buffer along the roadside (Furrows Road) enhanced with added evergreens, as offered in the referral materials, should be a requirement of the special exception approval. In addition, fifty (50') of undisturbed wooded buffer should be provided for on-site adjacent to the residentially zoned land to the west of the subject development site.

All precautions related to the land use to the north, (now or formerly Northville Industries/Market Span) should be taken to assure the safety and welfare of the immediate community. The New York State Energy Research and Development Authority (NYSERDA) promotes energy efficiency and the use of renewable energy sources. NYSERDA has developed the first comprehensive set of guidelines for reviewing and evaluating battery energy storage systems (see attached pdf at the bottom of the staff report). The Battery Energy Storage Guidebook for Local Governments, contains the following chapters:

- Model zoning law
- Model permit (akin to the Unified Solar Permit, which provides a streamlined permitting process for smaller solar systems)
- Inspection checklist (accompanies the Model Permit)
- 2020 Uniform Code Summary (collection of all the 2020 Uniform Code sections relevant to energy storage systems).

Of particular interest is the 2020 New York State Uniform Fire Prevention and Building Code. The code addresses exhaust ventilation systems, standby power, gas detection systems, large scale fire tests, remediation, and mitigation personnel, among other additional protection measures. Below are supplementary materials provided to the reader for additional insight into battery storage:

Lithium Ion Battery Safety Resources: (with descriptions)

- **ConEd and NYSERDA Report: *Considerations for ESS Fire Safety*** ([download link](#)): This report covers testing performed on a number of different batteries, including numerous lithium-ion chemistries.
- **DNV-GL: [McMicken Battery Energy Storage System Event Technical Analysis and Recommendations](#)**
This report conveys the key findings and recommendations resulting from the well-known battery incident in Arizona in 2019. Particularly, please note the following sections:
 - 5. Knowns and Unknowns Today – Review of Industry Knowledge and Standards (p. 42): Gives a timeline of how the industry has responded to, learned from, and evolved since this incident.
 - 6. Recommendations (p. 46)
- **Sandia National Laboratory: [Grid-scale Energy Storage Hazard Analysis](#)**
- **NREL: [Grid-Scale Battery Storage FAQ](#)**

It is the belief of the staff of the Suffolk County Planning Commission that the applicant and the Town of Islip Zoning Board of Appeals and should engage the New York State Energy Research and Development Authority (NYSERDA) for technical assistance regarding compliance with regard to the issues to address for assuring responsible battery storage development at the subject development site.

It is noted in referral materials to the Suffolk County Planning Commission from the Islip Town Zoning Board of Appeals that Storm Water runoff generated within the project's developed area will be recharged onsite to groundwater via engineered and constructed swales collecting and directing on-site generated storm water runoff to on-site subsurface diffusion wells. The Town of Islip Zoning Board of Appeals and the applicant should review the Suffolk County Planning Commission publication Managing Stormwater – Natural Vegetation and Green Methodologies and incorporate into the proposal design elements where practical.*

STAFF RECOMMENDATION

Approval of the Holbrook Energy Storage, LLC Special Exception request for the authorization to allow the construction of a privately owned and operated, lithium ion Battery Energy Storage System (BESS) with a capacity of up to 525 MW with the following comments.

1. All work should be closed out with the New York State Department of Environmental Conservation prior to work commencing on site for the BESS. According to referral information provided to the Suffolk County Planning Commission by the Islip Town Zoning Board of appeals, the site is currently undergoing physical and environmental remediation under NYSDEC Consent Order No. R1-20150923-175, which was expected to be completed sometime in late 2020.

2. The applicant and the Town of Islip Zoning Board of Appeals and should engage the New York State Energy Research and Development Authority (NYSERDA) for technical assistance regarding compliance with respect to the issues to address for assuring responsible battery storage development at the subject development site.

3. The applicant should be encouraged to review the Suffolk County Planning Commission publication on Managing Stormwater-Natural Vegetation and Green Methodologies and incorporate into the proposal, where practical, design elements contained therein.

4. The existing natural mature deciduous wood buffer along the roadside (Furrows Road) enhanced with added evergreens, as offered in the referral materials, should be a requirement of the special exception approval. In addition, fifty feet (50') of undisturbed wooded buffer should be provided for on-site adjacent to the boundary line to residentially zoned land to the west of the subject development site.

5. Approval of the Special Exception by the Suffolk County Planning Commission does not constitute acceptance/approval of any other zoning actions(s) associated therewith before any other local regulatory board.

** Link to Suffolk County Planning Commission Guidebook:

<http://www.suffolkcountyny.gov/Portals/0/planning/Publications/SCPCguidebk12r.pdf>

* Link to Suffolk County Planning Commission publication *Managing Stormwater-Natural Vegetation and Green Methodologies*:

http://www.suffolkcountyny.gov/Portals/0/planning/Publications/Stormwater_greenmethods021011r.pdf



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